SEVERE LOCAL STORMS, JULY, 1930

[The table herewith contains such data as have been received concerning severe local storms that occurred during the month. A more complete statement will appear in the Annual Report of the Chief of Bureau]

Place	Date	Time	Width of path, yards ¹	Loss of life	Value of property destroyed	Character of storm	Remarks	Authority
Devol, Okla	1	7:15 a. m	300		\$2,000	Wind	Property, other than crops, damaged; 1 person	Official, U. S. Weathe
Raton, N. Mex., and vicin-	1	1-3 p. m	1-3 mi.		12,000	Hail		Bureau. Do.
ity. Baileyville, Kans. (near)	3	5:30 a. m	1, 500			Hail	damaged. Roofs pierced; trees stripped; path 4 miles long	Do.
indlay, Ohio Frundy County, Iowa	. 4	3 a. m	2 mi.		3,000	Hail Probably tornado Hail	Buildings and trees damaged	Do. Do.
	5.	4 a. m	1		1, 500	Hail and rain	long	•
inn County, Iowa fahaska County, Iowa	5	5 a. m			1,000	Tornado	No details reported; path 4 miles long No details reported; path 1.5 miles long Windows and greenhouses damaged	Do. Do.
Ianitowoc, Wis Birdsboro, Pa	5	5 p. m			1, 500	Hail Rain, wind, and	1 Duikling blown down, several damaged; grain	Do. Do.
fifflintown, Pa. (near)	6	5-5:30 p.m.			10,000	hail. Electrical, wind	injured. Trees uprooted; 2 barns burned	Do.
farion County, Kans.	6	5:30 p. m	2 mi.	1	7, 500	and hail. Hail		Do.
(near) Ister and Dutchess Coun-	6	6 p. m			10, 000	do		
ties, N. Y.		_		1 1			_	Do,
Evansville, Ind., and vi- cinity.	6	10:30 p. m.		1		Thunderstorm, wind, and hail.	I trees broken: I barn destroyed, crops injured	Do.
larence, N. YVayne and Susquehanna	6 6	P. m do			28, 000	Electrical Hail	Clubhouse burned Considerable crop damage; poultry injured	Do. Do.
Counties, Pa. razier, Miles City, and	8			1	17,000	Hail and wind		Do.
Poplar to Brockton,			(11,000	Itali dila wilazza	Crops distributed, retophone poles blown down	D0.
Mont. anta Rosa, N. Mex. (near).	8	P. m			1, 100	Hail	175 sheep killed Considerable damage to small buildings, roofs,	Do.
dena, Ark	8					Wind	Considerable damage to small buildings, roofs, trees, and plate glass windows.	Do.
leorgetown, Md., and vicinity.	9	11 p. m			50,600		Greatest damage to corn and tomatoes; path 12	D ₀ .
Cumberland, Johnson, Sampson, and Wayne Counties, N. C.	9			1		do	Character of damage not reported.	Do.
Morristown, N. Y Delmar, Del	9 10	1 a. m	3 mi. 2 mi.		37, 000	do		Do. Do.
·					1,000	Wind	long. Character of damage not reported.	
ngomar, Mont., and vi- cinity.		1						Do.
ashville, Tenn	10		1		5, 000	ao	A glider and plane partially wrecked; 400 tele- phones out of commission.	Do.
Teillsville, Wis. (near)ovell Field, McCallie Lake, Alton Park and	10 11	9:20 a. m			5, 000	Severe squall Wind	Two siles and other farm buildings damaged	Do. Do.
St. Elmo, Tenn. Daviess and Greene Coun-	11				10,000	do	Crops, buildings, and wires damaged	Do.
ties, Ind. East Hartford, Conn	11					Wind, hail, and	Heavy damage to tobacco; traffic temporarily	Hartford Times (Conn.).
Evansville, Ind	11		1	1	1,000	rain. Tornado	halted; streets flooded. 1 house moved from foundation; others damaged; garage wrecked; trees uprooted.	Official, U. S. Weathe Bureau.
Headland, Ala	111				13,000	Hail Wind	garage wrecked; trees uprooted. Damage chiefly to crops. Wires blown down; trees and roofs damaged	Do. Do.
Ind. Vashville, Tenn		1:08 a. m		[3, 500	Thunderstorm	1	Do.
•		l .			,	and wind.	Large electric sign completely wrecked; trees and billboards blown down. Residence burned	
Castover, S. C. (near) Cedaridge, Colo	13 17	1 p. m 3-4 p. m 6 p. m 10:30 p. m.	2, 640		40,000	Hail	Severe demage to group	Do. Do.
Pama County, Iowa Chamberland and Kim-	19 19	6 p. m. 10:30 p. m.			5, 000 31, 000	Tornado Hail and wind	Character of damage not reported Buildings destroyed or damaged; crops ruined; greatest damage in Kimball.	Do. Do.
ball, S. Dak. Huron, S. D. (southeast of) South Fork, Colo. (near) Warsthon, Portage and Waupaca Counties, Wis.	19	11:55 p. m.		}	8,000	Wind	Ruildings wreeked	Do.
outh Fork, Colo. (near)	19 20	P. m 4.30 p. m		ļ	15, 500	Hail Tornado and thun-	300 acres of lettuce totally destroyed	Do. Do.
Waupaca Counties, Wis.	20	4.40 p. m			2,000	derstorm.	minor crop injury; tornado near Dancy. Several farm buildings damaged; trees uprooted; telephone poles blown down; small hangar	Do.
Delaware County, Iowa	20	6 p. m			8, 200	Tornado and wind	wrecked.	Do.
**		do		i	,		long. No details reported	
Tama County, Iowa McCook, Nebr					8,000	Tornado, wind, and hail. Wind and hail	Hangar demolished and 6 planes wrecked; several buildings damaged; many trees uprooted; corn	Do. Do.
Thorn N V	90	P. m				Hail	injured. Considerable damage to field crops, young apple	l no
Chazy, N. Y	1					l	trees and gardens.	Do.
Allentown, Pa	21	5 p. m		l	20,000	Electrical and wind.	Many buildings unroofed	Do.
lidney, Ohio (near)						Electrical and probably tornado.	2 barns burned; some damage to other property	Do.
Logansport, Ind Red Lion to Seaside Park,	21 21				7, 500 75, 000	Wind Tornado	Considerable property damage	Do. Do.
N. J. Chester, Bucks, Montgom- ery, and Northampton Counties, Pa.	22	3-6 p. m	1	Į.	200, 000	Wind, hail, and electrical.	Property of all kinds badly damaged	Do.
Counties, Pa. Weimer, TexBurlington to New Brunswick, N. J.	22 22	5 p. m	33	2	200, 000	Tornado	Small buildings wrecked	Do. Do.
Baltimore, Md	22			1		do	A few houses unroofed	Do.
Athens, Tenn	23		İ			Wind	Trees and outbuildings blown down; several horses killed.	Do.
Omah, Wash hawano and Oconto Coun- ties, Wis. Jew Danville, Pa., and		3 p. m		1	8, 000 20, 000	Haildo	Windows broken; poultry killed, crops beaten	
lew Danville, Pa., and vicinity.	24	3-4 p. m			60,000	Wind	Property of various kinds damaged	Do.

^{1 &}quot;Mi." signifies miles instead of yards.

Severe local storms, July, 1930-Continued

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks	Authority		
Pena Blanca, N. Mex	24	P. m	1, 760		\$10,000	Cloudburst	12 homes demolished; land covered with sand	Official, U	. 8 .	Weather
Rockland and Arbon Valley, Power County,	25	3–4 p. m	2-3 mi.		50,000	Hail	Large wheat fields completely ruined	Do.		
Idaho. Macon, Ga	25	3:33 p. m				Thunderstorm, wind, and rain.	Trees uprooted; telephone poles blown down; chimneys overturned. Some damage by	Do.		
Benton and Buchanan Counties, Iowa.	25	6 p. m			73, 000	Wind and hail	lightning. Character of damage not reported	Do.		
Story County, Iowa Boone, Hancock, and Kos-	26 26	9:30 a. m			500 70, 500	Tornado Wind and bail	No details reporteddodo.	Do. Do.		
suth Counties, Iowa. Coddington, Wis	27	1:30 a. m	880		10,000	Probably a tor-	5 barns wrecked; other buildings damaged	Do.		
Wright and Ida Counties, Iowa.	27	7 p. m	i		12,000	Wind and hail		Do.		
Stoughton and Oregon, Wis.		11 p. m		1	30,000	1				
Appelton, Wis. (near) Bruce to Ladysmith, Wis	27 27			2 	100,000	Thundersquall Thunderstorm and wind.	Power lines blown down. Many barns and silos partially or completely wrecked; other buildings damaged.	Do. Do.		
Ellsworth, Wis. (near) Rice Lake, Wis	27 27		6 mi.	<u>i</u> -	30,000	Squall Thundersquall	A number of barns and silos demolished	Do.		
Wausau, Wis., and vicinity.	27				10,000	Wind and rain	Public utilities companies suffer losses; several barns blown down and roofs damaged.	Do.		
Trenton, S. C., and vicinity. Dunkirk, N. Y	27 28	P. m				Electrical Thundersquall	Home burned; mule killed Steamer George W. Whelan sank, drowning part of crew.	Do. Do.		
Greenville, S. C. Rock Hill, S. C. (near)	28 28	P. m	l		3,000		Duke Power Plant damaged	Do. Do.		
Greenville, Miss Greenville, Tex. (near)	29 29	4 p. m 5 p. m	220		5,000	Thundersquall Tornado	Character of damage not reported. Boathouses, bathhouses and outbuildings over-	Do. Do.		
Dandridge and Murfrees- boro, Tenn.	29	ļ				Wind	turned or damaged. Trees and chimneys blown over; crops injured	Do.		
Pittsylvania County, Pa. (north-central).	29							Do.		
Groveton, Tex. (near)	30		2, 640			Wind	Roofs torn off; crops badly damaged	Do. Do.		
Valley View, Tex	30 30	6.30 p. m.	332			Wind and hail	2 houses unroofed; small buildings damaged;	Do.		
Diboll, Tex LaSalle and Grant Par- ishes, La.	30 31				60,000	Wind Severe thunder- squall, tornadic characteristics at times.	Considerable damage to buildings; corn hurt	Do.		

RIVERS AND FLOODS

By R. E. SPENCER

As part of his report on the results of the Red River flood of May, 1930, Mr. R. A. Dyke, of the Weather Bureau office at New Orleans, La., submits the following tabulation from a report of the New Orleans office of the Bureau of Agricultural Economics, United States Department of Agriculture. (The figures include the Louisiana acreage within both the Shreveport and the New Orleans river districts):

Crop acreage destroyed by flood waters in the Red River Valley in Louisiana, in May, 1930, acreage subsequently replanted, and percent replanted

Crop •	Acreage destroyed by flood	Acreage replanted	Per cent replanted
Cotton Corn Oats Tame hay Irish potatoes Sweetpotatoes Peanuts Sugarcane Truck crops	95, 400 34, 335 1, 360 9, 783 450 700 140 520 375	58, 085 43, 948 0 7, 050 80 989 25 0 340	60. 9 130. 0 0. 0 72. 1 17. 8 141. 3 17. 9 0. 0
Total	143, 063	110, 517	77, 25

Number of head of livestock destroyed by the flood: Horses, 8; mules, 5; cattle, 112; swine, 215; sheep, 100; goats, 475; poultry, 580. Nearly all the cattle drowned were in Caddo Parish; nearly half of the swine were drowned in Ayoyelles Parish; all the sheep and nearly all the goats were drowned in Natchitoches Parish.

The crop acreage destroyed is divided by parishes as follows:

Bossier	6, 460	Winn	7, 330
Caddo	26, 460	Natchitoches	55, 005
De Soto	3, 890	Avoyelles	1, 410
Red River	33, 175	Grant	6, 300
Webster	1, 025	Rapides	1, 865
Rienwille			·

Mr. Dyke's report continues—

Approximately half of the inundated crop acreage of 33,920 in Caddo and Bossier Parishes is in the Shreveport river district. Confining the estimated losses to the New Orleans district, the total agricultural loss, exclusive of farm equipment, approximated \$1,235,000 for crops and \$6,000 for livestock. Cotton and corn losses are estimated at \$1,073,600, with oats, hay, potatoes, sweet potatoes, sugar cane, and truck making up the remainder of the crop losses.

There were also some losses of household goods, unestimated.

There were also some losses of household goods, unestimated. There was some damage to highways, and highway traffic in much of the valley was interrupted for a few weeks. More than 10,000 persons were rendered temporarily homeless, about 7,500 being cared for in refugee camps. Others, remaining in or near their homes, were supplied with provisions by boat. The loss of life, amounting to about nine persons in the State, in most cases was only indirectly connected with the flood, occurring mainly on bayous in the area, where efforts were being made to remove livestock or to travel by boat.

An estimate of the money value of the Weather Bureau flood forecasts is impracticable from the data available. But it is known that general heed was given to the warnings and the active efforts made to save livestock and other property resulted in large savings.

Excepting that referred to in the paper immediately following this report, no flood damage of importance is reported for July. A discussion of the effect of the drought upon stream stages will appear in the August